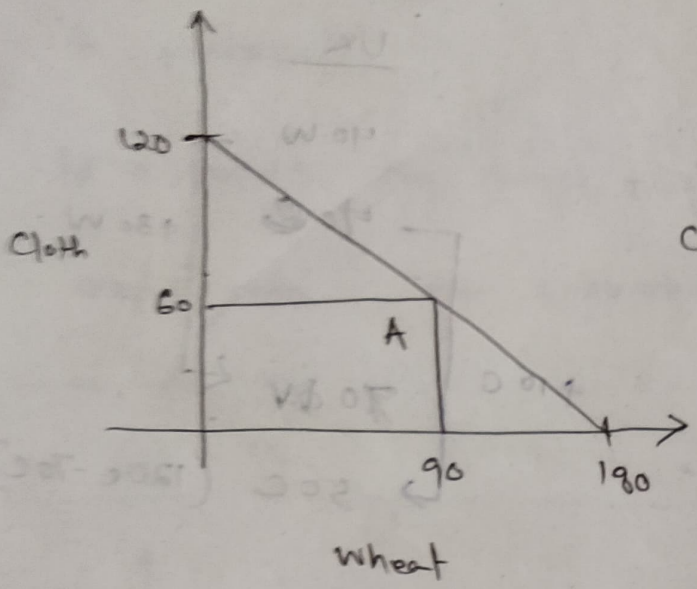
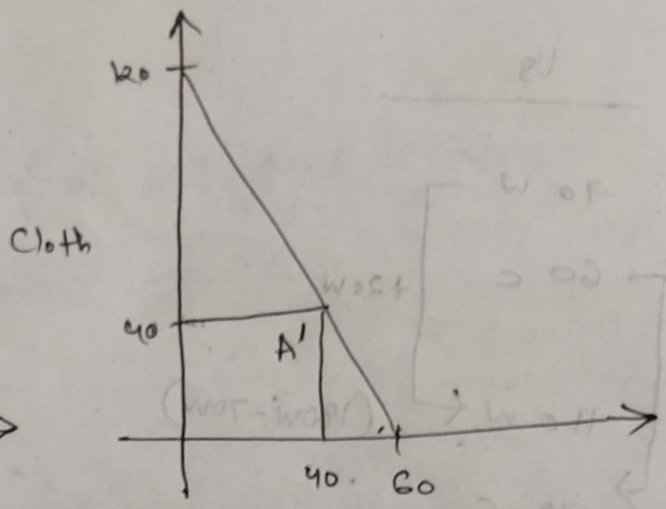
This is the case BEFORE TRADE :

USA



UK



	US	UK
Wheat	90 W	40 W
Cloth	60 C	40 C

From Relative commodity Price, we already know that US has a lower opportunity cost of producing wheat (has greater comparative advantage in wheat) and UK has a ~~higher~~ lower opportunity cost of producing cloth (has greater comparative adv. in cloth)

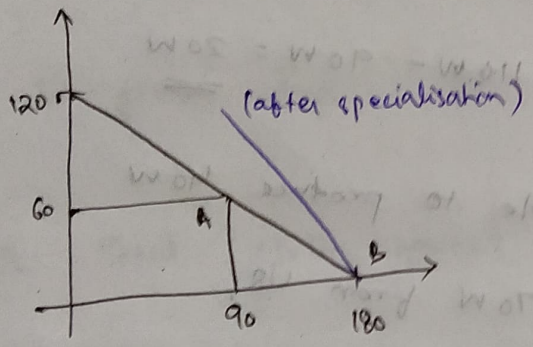
So US specialises in wheat, utilizes all its resources to produce wheat.

UK specialises in cloth, utilizes all its resource to produce clothes.

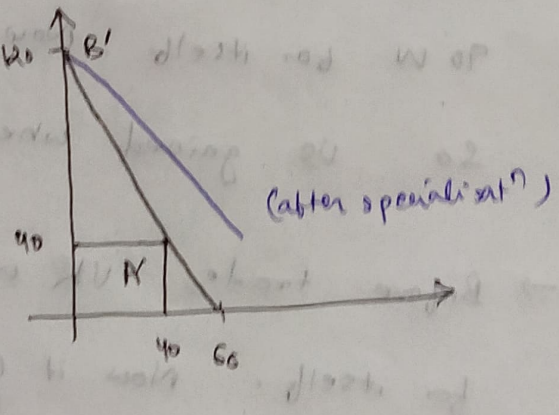
∴ This means, US produces its maximum possible amount of wheat 180 W and UK produces its maximum possible amount of cloth 120 C.

AFTER TRADE SITUATION:

USA



UK



What is the exchange rate?

USA specialises in wheat, but it needs clothes. So, it needs more than 60 C since it can produce 60 C by itself before trade anyway.

Similarly UK specialises in clothes, it needs wheat. Exchange rate should provide more than 40 W since UK can produce 40W by itself before trade anyway.

Suppose the exchange rate is

70 W = 70 C

This means US provides 70 W to UK in exchange for 70 C from UK.

We know, US (after specialisation) is producing 180 W.

→ If it gives 70 W to UK then it has 180 − 70 = 110 W remaining for itself.

→ Before trade, US was able to produce only 90 W for itself. Now it can keep 110 W.

So US gained wheat = 110 W − 90 W = 20 W

→ Before trade, UK was able to produce 40 W for itself. Now it gets 70 W from US.

So UK gained wheat = 70 W − 40 W = 30 W

Total wheat gained = 30 W + 20 W

= 50 W

We know UK (after specialisation) is producing 120 C

→ If it gives 70 C to US, then it has 120 − 70 = 50 C remaining for itself.

→ Before trade, UK was able to produce 40 C for itself.

Now it can keep 50 C.

So UK gained cloth = 50 C − 40 C = 10 C

→ Before trade, US was able to produce 60 C for itself.

Now, it gets 70 C from UK.

So US gained cloth = 70 C − 60 C = 10 C

So Total cloth gained = 10 C + 10 C = 20 C

Total Gains of Trade → 50 W and 20 C